Information Technology Master Plan

Prepared by:

Office of the CIO
Maricopa County

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Introduction

It is the goal of Maricopa County to be a national leader in the effective use of technology for the delivery of government services to its customers and constituency. The purpose of this document is to provide a unifying vision and comprehensive overview of County IT strategy in the areas of governance, architecture, management, and systems deployment. Due to the dynamically changing nature of the technology landscape, the strategies outlined herein are intended to cover a period not exceeding three years.

In order to accommodate the extensive range of technology initiatives at the County, the style of this document is brief, to the point, and generally composed of concise bullet statements. Following an overview section that highlights the IT Mission, Vision, Values and Governance, the content is structured in a three-tier hierarchy as follows:

Strategy Portfolio - represents a broad area composed of one or more strategy domains

Strategy Domain - represents a specific functional area composed of one or more strategies

Strategy Statement - represents a specific goal to be accomplished

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- Hard copy
- Individual electronic presentation with direct hyperlink capability
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This document is a product of the Office of the CIO of Maricopa County. Any comments or questions should be directed to:

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IT Master Plan

Maricopa County

Office of the CIO

January 2003

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Mission and Strategic Thrusts

IT Mission Statement

The mission of Information Technology is to provide strategic vision, leadership, and enterprise solutions to County leaders and staff so they can meet their goals and deliver results to the Public.

IT Strategic Thrusts

The following represents the long term outcomes being pursued by the IT organizations of the County:

- County employees will have the flexibility to do their jobs from anywhere in the County at any time
- The Public and outside organizations will be able to obtain services and transact business electronically from any location at any time
- Operational and strategic decision-makers will be able to readily and easily access information they need to make informed decisions
- The cost and time to deliver services will be reduced by streamlining business operations through the use of technology
- Through countywide standardization, we will optimize the use of technology resources

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IT Vision

Information Technology will champion Maricopa County into Information Age Government by:

Enhancing Business Models:

County Personal Services	→	**On-line Citizen Self-sufficiency**
Internal Department Services	→	**Employee Self-sufficiency**
Paper / Phone-based Services	→	**Electronic Government**
Varying Technical Skills	→	**Full Technology Literacy**
Solid Department Boundaries	→	**Flexible Public / Private Boundaries**
8 x 5 Service	→	**7 x 24 Service**

Converting to a Digital Medium:

Silo-bound Paper Processes	→	**Horizontal Digital Workflow & Forms**
Paper Archiving	→	**Electronic Document Image Archives**
Videoconference Rooms	→	**Desktop Video**
Serial Comment & Approval	→	**Concurrent Collaboration**
Group Classroom Training	→	**Real-time On-line / Video Training**

Enabling a Mobile Workforce:

Dial-up Services	→	**Extensive Mobile Infrastructure**
Discrete PDA/Pager/Cell Phone	→	**Integrated Remote Device**
Discrete Mail Systems	→	**Integrated Voice, E-Mail & Publishing**
Facsimile Machines	→	**Internet-directed Retrieval & Printing**

Increasing Efficiency:

Departmental Data Centers	→	**Shared Service Bureaus**
Insourced Technology Services	→	**External Service Providers**
Multiple Microcomputer Vendors	→	**Consolidated Purchasing Portal**

Integrating Systems:

Discrete E-mail / Web / GIS	→	**Integrated Desktop Services**
Discrete Resource Directories	→	**Universal Resource Directory**
Discrete Office Equipment	→	**Networked Office Devices**

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IT Values

The following represents the six key values followed by the Information Technology organization of Maricopa County

We understand and enhance our clients' business operations

We proactively make things happen and seek opportunities for improvement

We cooperate and work well with teammates, clients and business partners

We progressively innovate while maintaining a stable operating environment

We are dependable and follow through on commitments

We accept accountability to educate ourselves and maintain superior technical skills

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The Federated Model

To ensure that IT resources deliver maximum business value, the County will employ a federated structure to manage information technology. Reflecting the overall business model of decentralized County management, the federated approach balances the benefits of local autonomy with the advantages of enterprise-wide IT coordination and management. It simultaneously allows responsiveness to business issues and accountability to local management, while establishing a convergent IT direction and optimized infrastructure. This approach keeps decision-making as close as possible to the business unit while integrating the fabric of the County technology infrastructure, electronic data, and horizontal processes.

The federated structure recognizes the following three levels:

Enterprise

Policy, standards, infrastructure, enterprise systems, security, and telecommunications

Electronic Community

Processes, systems, and data shared between departments

Department

Systems internal to a specific department or functional area

Each of these three tiers represents varying blends of integration and autonomy. At each level, an IT function is autonomous except as it relates to the tiers(s) above, where it must follow the prevailing policies, standards, conventions and practices for purposes of business process and system integration. As an extension of this three-tier model, the governance of technology at Maricopa County follows a well-ordered hierarchy and planning structure. This structure is represented by the node tree on the following page which represents the various groups and subgroups at each of the federated levels.

IT Governance - Hierarchy

Enterprise

Electronic Community

Department

- **E-Government Council**
  - **Digital Signature Subcommittee** (Ken Medlin)
  - **Electronic Payment Subcommittee** (Sarah Shew)
  - **Enterprise Portal Subcommittee** (Katherine Douglas)
  - **GIS Subcommittee** (Ken Medlin)
  - **Help Desk Subcommittee** (Jan Neal)
  - **PC/LAN Subcommittee** (Jan Neal)
  - **Security Subcommittee** (Darrell Mills)
  - **Technology Literacy Subcommittee** (Nancy Corbett)
  - **Wireless Research Subcommittee** (Nancy Bozich)
- **Architecture Advisory Group**
- **TIP Council**
- **Enterprise IT Services (CIO)**
- **Administrative Systems Council**
- **J&LE Executive Committee**
  - **ICJIS Business Team**
  - **Integrated Criminal Justice System Agency**
  - **Justice and Law Enforcement Technology Council (JALET**
- **Smart Permitting**
- **STAR Board**
  - **Star Call Center**
- **Elected Officials Domain**
- **Administrative Services Domain**
- **Community Services Domain**
- **Health Services Domain**
- **J&LE Domain**
  - **Courts IT Steering Committee**
- **Public Works Domain**

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IT Governance - Key Councils

Electronic Government Council

The highest level IT governing body of the County is the *Electronic Government Council*. It is composed of elected officials, executive management and other external representatives.

Electronic Government Council Charter

The general charter of the *Electronic Government Council* includes the following:

- Establish a compelling program for e-Government
- Develop a common vision and strategy
- Establish planning framework for service transformation
- Promote consistent and convenient delivery channels
- Enable cross-agency synergy and cultural alignment
- Set major targets and monitor progress
- Monitor departmental e-business strategies
- Provide oversight of key Initiatives
- Approve “Enterprise” policies, practices, and standards

Electronic Government Council Membership

Representing service domains from across the County, the *Electronic Government Council* Membership will include the following “diagonal” leadership:

- County Administrative Officer and Chief Information Officer (co-chairs)
- Elected Official(s)
- Selected Chief Officers
- Selected Department Heads
- Other Progressive Staff Members
- External Representatives including the State CIO Office and Private Sector

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IT Governance - Key Councils

Administrative Systems Council

The *Administrative Systems Council* provides leadership in the development of an overall integrated administrative systems framework which is supportive of County performance management objectives. It provides strategic direction and operational oversight of the following key areas:

- Budget System
- Human Resource System
- Financial System
- Managing for Results System
- Procurement System
- Other Ancillary Systems including On-line Reporting and Data Warehouse

Administrative Systems Council Membership

Representing the Administrative Departments of the County, the *Administrative Systems Council* Membership includes the following executive leadership:

- Chief Information Officer (chair)
- Deputy County Administrative Officer
- Chief Financial Officer
- Human Resources Director
- Procurement Director
- Budget Manager
- Managing for Results Manager
- Electronic Government Technology Directors
- Other Key Staff

Guiding Principles of Implementation

The following will guide the implementation and integration of future systems:

- Significant investment in new technology will be integrated with process improvements which eliminate inefficient tasks and duplicate data. Data will be entered into the information system only once at the point of origin.
- Common systems will be used for similar business functions unless verifiable proof exists that some functions must remain different or unique. Shared systems resources and common data repositories will be exploited wherever possible.
- The preferred approach to new systems will be to integrate purchased applications that are based upon recognized industry standards -- modification of these systems should be kept to an absolute minimum. Custom development will be considered only as a last resort. New systems will be validated by the business unit in pilot implementations prior to full scale deployment.
- The IT infrastructure shall allow employees, citizens and business partners to satisfy an ever-increasing amount of their business needs using electronic means. It will be deployed so that the location of data or the application that produces data is irrelevant.
- Technology resources will be leveraged effectively and efficiently through the adoption of common standards and shared information. Data, voice, video, image, workflow and GIS information systems shall be standardized and interoperable between County agencies. The IT infrastructure will define the interfaces between systems.
- Business units will be fully responsible for the benefits and costs of information technology deployed in their operations. They will assume accountability for delivering productivity gains derived from technology implementation as committed to in their business strategies and plans. Operations will employ solutions that meet business needs while providing the lowest overall cost to the County.
- The oversight of major programs will be assigned to one of the three governance tiers: Enterprise (Electronic Government Council or Office of the CIO), Electronic Community (Leadership Team); or Department (Business Leadership). Business and technology oversight will be maintained throughout the program lifecycle. Independent reviews by either Internal Audit or external service providers may be requested by senior management as appropriate.

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Strategy Domain : Technology Roadmaps

The following represent strategic directions within a three year planning horizon:

- **Groupware** -- *MS Exchange, Outlook/Outlook Express, Outlook Web Access* (OWA)
- **Geographic Information Systems** -- *ESRI ArcInfo* and *ArcView* with County-wide GIS directory
- **EDM and Image** -- Native format scanning (TIF, JPEG) and *Windows 2000 / SQL Server* storage and retrieval
- **Remote Access** -- Centralized RAS Server over ISDN, DSL, cable-modem, and satellite
- **Directory Services** -- *Active Directory*, native and LDAP access methods
- **Video Streaming** -- *MS Universal Media* and *Real Video* client players
- **Desktop Platforms** -- *Windows 2000 Professional* and *Windows 2000 Server*
- **Network Operating System** -- *Windows 2000 Server*
- **Office Automation** -- *MS Office Suite, Acrobat Reader*
- **Browser and Access Tools** -- *MS Explorer, Eudora* (for Pocket PC devices only)
- **Development Languages and Tools** -- Visual Basic/VBScript, Java/JavaScript, J2EE, COBOL (legacy)
- **Operational Data Base Management Systems --** *Oracle, MS SQL Server, IBM DB2 , Informix*, and *MS Access*
- **Security --** Network and Host based Intrusion Detection, Biometric/Smart Card, FTP/HTTP Virus Scanning, and PKI/XKI
- **Data Network** -- TCP/IP, FTP, HTTP protocols over SONET ring-based ATM and Ethernet backbone, and address 802.11 security concerns
- **Voice Systems** -- Voice services over IP to remote locations; integrated ACD and IVR systems
- **Video Systems** -- One-way full motion over ATM, compressed two-way over Ethernet/ISDN
- **Transmission Systems** -- Category 5e & 6 twisted-pair; 62.5 micron fiber
- **Wireless Systems** -- 800 MHZ Smartzone full-trunking network; digital microwave

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Strategy Portfolio: IT Architecture

Strategy Domain: Maricopa County Technical Architecture

Continue refinement of the County Technical Architecture to facilitate standardization, systems integration and convergence in the following technology domains and related disciplines:

- **End-User Computing** - desktop computing; wireless computing
- **Common Services** - groupware; workflow; GIS; e-payment; electronic document management; e-forms; e-learning
- **Web Content** - design standards; development tools; video streaming
- **Applications Development** - development languages and tools; business process management and data modeling tools
- **Middleware** - integration middleware
- **Data Systems** - operational DBMS (OLTP); data warehouse (OLAP
- **Operating Environments** - application servers (applications, web, integration, etc.); file and print server
- **Protection** - identification management; privacy; security; virus management
- **Communications Systems** - data network; radio systems; remote access; transmission systems; video systems; voice systems; wireless systems
- **Enterprise Management** - directory services; domain name services; help desk services; infrastructure management (event, change, asset, performance, etc.)

Assign responsibility for each related technology roadmap to one of the three governance tiers (enterprise, electronic community or department) and to a specific horizontal group as required (assignment performed by Architecture Advisory Group).

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Strategy Portfolio: IT Management

Strategy Domain: Portfolio Management

Provide vision, leadership, direction, analysis and recommendations to county management, staff and partners so they can collaborate on common goals and initiatives to:

- Implement best information technology management practices;
- Maximize information technology investment for the public;
- Advance the e-Government agenda; and
- Enhance alignment and collaboration among county departments.

Strategy Domain: Technology Research

Procure and utilize full range of *Gartner Group Advisory Level Services*

Strategy Domain: Enterprise Leasing and Licensing

Maintain the lease financing model for desktops, servers, printers, and laptops toward a long-range strategy of comprehensive seat management

Continue to execute Microsoft licensing agreements

Strategy Domain: Microcomputer Equipment Sourcing

Continue to leverage new and existing national contracts for microcomputers, servers, and related hardware products

Further increase savings by arranging for even deeper discounts for County standard configurations

Strategy Domain: Market Compensation

In partnership with Human Resources, continue to annually aggregate market data from multiple external sources for each defined County technology position; post market data on internal County Intranet; strategically fund technology functions at 6% behind overall market mid-point

Strategy Portfolio: IT Management

Strategy Domain: Policy Development

Implement new or updated management policies to include the following areas:

- IT Governance
- Virus Protection
- Disaster Recovery Management
- Security Management
- Electronic Mail
- Internet Usage

Strategy Domain: Disaster Recovery Coordination

Develop a Disaster Recovery Policy for Information Technology

Utilize any Year 2000 Contingency Plans for transformation into updated IT Business Continuity and Disaster Recovery Plans

Implement a standardized Disaster Planning template (*Janco Associates*)

Strategy Domain: Common IT Program

Implement and report on standardized *result, output, demand* and *efficiency* measures throughout the decentralized IT activities of the County for the following functional areas:

- Business Applications and Development
- Data Center
- Desktop Support
- GIS Applications and Development
- Help Desk Support
- Value Added Network
- Enterprise IT Collaboration

A summary of these measures is detailed on the following page.

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Standard IT Measures

The purpose of the Information Technology program is to provide leadership and service to the client departments so that management can obtain maximum benefit from the IT resource.

BUSINESS APPLICATIONS & DEVELOPMENT ACTIVITY

Result:	% Customers Satisfied with Applications Development Service Request outcome
Result:	% Change in Web Pages Viewed (Internet & Intranet)
Outputs:	# of Application Development Service Requests Completed
Outputs:	# of Web Pages Supported
Demand:	# of Application Development Service Requests Anticipated
Demand:	# of Web Pages Create/Update/Delete Requests Anticipated
Efficiency:	Cost per Application Development Service Request Completed
Efficiency:	Cost per Web Page Supported

DATA CENTER ACTIVITY

Result:	% of System Availability (24x7)
Result:	**% of System Availability during Prime Business Hours (12x5)**
Output:	# hours system available, excluding planned outages
Output:	**# hours system available (12x5), excluding planned outages, during prime business hours**
Demand:	Anticipated # hours system should be available
Demand:	**Anticipated # hours system should be available during prime business hours (12x5)**
Efficiency:	Cost per hour system available (24x7), excluding planned outages
Efficiency:	Cost per hour system available (12x5), excluding planned outages

DESKTOP SUPPORT ACTIVITY

Result:	% of Available Server Services (24x7)
Result:	# of Available Server Services during Prime Business Hours (12x5)
Outputs:	# of service calls completed
Output:	**# of deleted or damaged file restores completed**
Demand:	**#Installed and Re-deployed Desktops**
Efficiency:	Cost per Installed and Re-deployed Desktop

GIS APPLICATIONS & DEVELOPMENT ACTIVITY

Result:	% of Customers Satisfied with Outcome
Outputs:	# of GIS Service Requests Completed
Demand:	# of GIS Service Requests Expected
Efficiency:	Cost per GIS Service Request Completed

Strategy Portfolio: IT Management

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HELP DESK SUPPORT ACTIVITY

Result: % Customers Satisfied with Help Desk Services
Outputs: # of Calls Received
Demand: # of Calls Anticipated
Efficiency: Cost per Call

VALUE ADDED NETWORK ACTIVITY

Result: % of GroupWare System Availability 24x7 (server)
Result: **% of Distributed Application Hosting Infrastructure Availability 24x7 (Infrastructure/Server only)**
Result: **% of Groupware System Availability 24x7 (End-to-End)**
Output: # of service/support requests
Output: # of viruses detected and handled
Demand: # of service/support Requests
Demand: # of protected workstations and servers
Efficiency: Cost per service/support request

ENTERPRISE IT COLLABORATION

Result: % Completion of E-Community short-term goals
Output: # of Collaboration Activities Completed or Delivered
Demand: # of collaboration Activities Anticipated
Efficiency: Cost per Collaboration Activity Unit

Strategy Portfolio: Administrative Systems

Strategy Domain: Integrated Administrative Systems

Within the three year planning horizon, the following will represent the County approach to its administrative systems portfolio. The pages that follow contain brief descriptions of these components together with key planned activities.

Foundation Systems

- **ADAYTUM** — Budget
- **EAGLE** — New HR System
- **ADVANTAGE** — Financial

Enterprise Management Systems

- **WWW** — County Internet
- **EBC** — Intranet Platform
- **Pathlore** — Learning Mgmt. System
- **MFR** — Data Warehouse
- **Report Web** — Report Server
- **Info-Advantage** — Fin. Query
- **MS Exchange** — Workflow Engine

Reporting Tools

- **Crystal Reports** — Report Writer
- **Business Objects** — Report Writer

Strategy Portfolio: Administrative Systems

Integrated Administrative System Components

Foundation Systems

- **Adaytum** - the County budget planning, development and management system
- **Eagle** - the Eagle project is addressing the replacement of the County human resources system (payroll, personnel management, position control)
- **Advantage** - the County financial system (general ledger, accounts payable, financial reporting)

Enterprise Management Systems

- **County Internet** - the principal on-line interface for G2C, G2B and G2G
- **Electronic Business Center (EBC)** - the County Intranet infrastructure
- **Learning Management System (LMS)** - a suite of Pathlore products for training scheduling, managing and reporting
- **MFR Data Warehouse** - extensive on-line repository of a wide range of MFR related data including:
  - Strategic plans
  - Performance data and budgeting for results data
- **Report Web** - an on-line repository and archive of widely used financial and HR reports
- **Info Advantage** - an on-line financial query tool
- **MS Exchange Workflow Engine** - Exchange 2000

Standardized Reporting Tools

- **Crystal Reports** - convenient end-user tool for accessing and analyzing other administrative data
- **Business Objects** - convenient end-user tool for accessing and analyzing financial data

Strategy Portfolio: Administrative Systems

Strategy Domain: County Budget Systems

Enhance the *Adaytum Budget System* with the new County Chart of Accounts

Add the following to the *MFR Data Warehouse*

- Strategic Plan Data Base
- Performance Measures Data Base
- Efficiency Measures Data Base
- Budgeting for Results Data Base
- County Automated Organization Structure
- Quarterly Reporting

Strategy Domain: County Financial Systems

Develop interfaces for Time Allocation System (TAS)

Reduce current disk space requirements and rectify inefficiencies in production JCL

Develop a scheduled synchronization of all CICS Regions with production

Develop DB2 tables and other technical solutions in the deployment of InfoAdvantage ad hoc reporting tool

Participate in development of web-based/mainframe solutions to business needs

Participate in phase 1 development of the eForms Library on the EBC

Strategy Portfolio: Administrative Systems

Strategy Domain: County Human Resources Systems

Assist Human Resource Department in selecting replacement HR information system

Implement the following components of a new HR system: (Phase 1) HRMS, Payroll, Basic Benefits; (Phase 2) Employee Self Service; (Phase 3) Time Allocation & Labor Distribution; (Phase 4) Applicant Tracking and Benefits Administration

Implement and support ad-hoc reporting

Deploy additional Human Resource reports to report.web

Respond to requests for information or service requests within 24 hours of receipt

Implement a new Employee Performance and Evaluation Tool within the *MFR Data Warehouse*

Within the LMS Suite, add the following components:

- Enhance use of existing tools and platforms
- Skills competencies

Implement the following workflow applications:

- Personnel Agenda Processing
- Bus Card Processing
- Salary Advancement Processing
- New Hire Processing
- Tuition Reimbursement Processing
- Employment Application Processing

Strategy Portfolio: Administrative Systems

Strategy Domain: County Procurement Systems

- Automate procurement workflow and tracking
- Automate electronic ordering of commodities and services
- Automate electronic solicitation
- Implement a new, United Nations National Institute of Governmental Procurement supported based Commodity Code Structure
- Implement a Web-based On-Line Vendor Registration System
- Implement a Web-based On-Line Bidding System
- Implement a Department Contract Management Tool to administer County contracts
- Implement a Decentralized Purchase Order Printing System for local documentation

Strategy Domain: County Intranet (Electronic Business Center)

- Implement two additional phases of the MFR Data Warehouse to OMB's requirements
- Support the development of cross-platform application software that delivers host data via a Web-based interface
- Assist with development of electronic workflow applications automating an HR process
- Implement a database access model that supports the Web server farm infrastructure
- Deploy an electronic workflow platform for eForms
- Evaluate new EBC portal model

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Strategy Portfolio: Electronic Communities

Strategy Domain: Integrated Justice and Law Enforcement

Maximize *ICJIS Integration Engine* operation as the hub for data exchanges among Justice and Law Enforcement agencies.

Implement *Common Case Numbering* system.

Implement the *Common Code Table* to standardize information sharing and messaging.

Enhance *Integrated Criminal Justice and Law Enforcement System Data Exchanges.*

Upgrade County secured network to support new *NCIC Security Protocols* and *FBI Security Standards.*

Implement *Convergent Architecture Standards* for all JLE agencies.

Strategy Domain: STAR Board

Note: The STAR Community includes the Board of Supervisors, Treasurer, Assessor, Recorder, and the Clerk of the Superior Court

Migrate Star Center to a single browser-based platform for data retrieval using Internet Explorer

Expand Automated Call Answering System to provide additional services 24 hours per day

Enhance automated applications for purposes of telephone customer support

Create tele-working project to allow agents to work from home during peak demand periods

Implement a web-based training program to allow agents to be cross trained in multiple disciplines

Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Digital Signature

Note: The requirement for digital signature technology is first required within the J&LE community due to the implementation of electronic messaging and the requirement of non-repudiation.

Implement a methodology, infrastructure and policies which:

- Provide strong authentication, audit trails and security for the exchange of digital documents
- Are in harmony with the strategies of the Arizona Secretary of State and the State CIO's Office (GITA)

Assess and determine the viability and practicality of utilizing Public Key Infrastructure (PKI) technology

Strategy Domain: Electronic Payment

Establish a methodology and infrastructure for the payment of government services and products which are obtained through on-line Web-based transactions

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Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Enterprise Portal (Planning Continuum)

Under the general guidance of the *Electronic Government Council*, the state of the County Electronic Portal will continue to be advanced as indicated below. This will be a collaborative effort which is coordinated through the Enterprise Portal Subcommittee.

Past	Present	Future
Convergence and Optimization	E-Government Services Portal	Government Transformation
Static Information **Directories** **Profiles** **E-mail integration** **Discussion groups**	**Services view of County** **Agency transparency** **On-line transactions** **Dynamic information** **Citizen self-sufficiency** **Standardized content** **Consistent Practices**	**E-Gov Governance** **Broad portfolio** **Business process linkage** **Customer Resource Management (CRM)** **Sophisticated collaboration** **Advanced personalization** **Electronic transactions** • **E-forms** • **Workflow** • **E-payment** **Rich data formats** • **Voice** • **Video** • **GIS Maps** **Portal to external agencies**

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Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Enterprise Portal

As indicated on the following page, advance the state of the County Internet in terms of consistency, ease of use and reliability

Leverage XML and XSL standards in the County's Internet and Intranet sites in the following ways:

- Enhanced performance - pages will be rendered much faster from a dynamic XML file
- Improved flexibility - A single XML file will support *service, department* and *site map* views
- Multi-platform support - The same information can be delivered to multiple browsers and platforms
- Easier maintenance - A few XSL commands will replace approximately 100 lines of code

Following the lead of the State of Washington to:

- Provide a framework for multiple agencies to work simultaneously on issues related to development of web-based applications
- Develop a step by step web-based guide for building e-Commerce and e-Government applications
- Streamline the development of Internet applications by providing a road map that resolves issues

Achieve the following tactical goals within the next 18 months:

- Create a Maricopa County Internet Style Guide to be followed by all Maricopa County Departments with a web presence
- Complete a Section 508 Compliance Plan to be implemented by all Maricopa County Departments with a web presence

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Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Enterprise Portal (General Model)

As highlighted below, the County Portal will evolve to recognize two distinct service domains:

- Customers (e-Services)
- Constituency (e-Politics)

Customer Centric
Services Presentation
Standardized Formats
Common Architecture

Customers
- Citizens
- Businesses
- Other Agencies
- Visitors
- Employees

County Portal

Service Requests →

← Service Delivery

e-Services
- Agencies
- Business Partners

Constituency
- Citizens
- Businesses

Requirements & Opinions →

e-Politics
- Elected Officials

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Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Geographic Information Systems

Adapt the GIS portal to employ new technology and data

Provide training which facilitates a shift to the new data model (geodatabase)

Enable mobile access to production GIS systems (both dynamic and stored)

Provide regular technical forum and expand subcommittees

Develop consistent data distribution policies (e-commerce)

Provide continuity of GIS internet applications

Extend role of GIS Program Office and County GIS Officer within County IT Policy

Strategy Domain: Help Desk Subcommittee

Increase communication and collaboration between departmental Help Desks through leading initiatives and facilitating meetings

Collaboration on and development of a basic Service Level Agreement

Strategy Domain: PC/LAN Group

Increase communication and collaboration between PC/LAN groups through leading initiatives & facilitating meetings

Maximize spending and minimize individual departmental efforts in server disaster recovery via the “Server Hot Site” subcommittee

Maximize server uptime through systems management software and by enhancing the model for HP/Compaq server maintenance via the “Compaq server spare parts subcommittee” and the “Argent server systems management subcommittee”

Develop network O/S strategy for Microsoft shops (where we go from 2000 and .NET, LINUX, NetWare, etc.) via the “Microsoft server O/S subcommittee”

Refine MfR metrics for desktop/server area to more accurately “tell the story”

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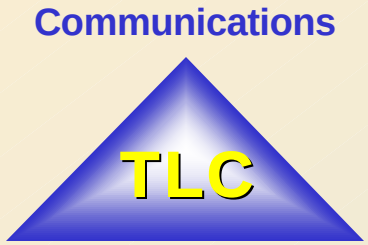
Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Technology Literacy

Functions under the general direction of the *Electronic Government Council* and *Technology Literacy Subcommittee*. The mission is to create a culture of competence in technology skills so that all Maricopa County employees can provide their customers with the highest level of service. The Office of the CIO will implement a comprehensive technology literacy program with the following three components:

- **Business Model**
  - Enhance Executive Sponsorship
  - Develop Principles and Policies
  - Implement Strategic Agenda
  - Leverage Horizontal Groups
  - Advance the Cultural Evolution
- **Technology Infrastructure**
  - Establish Technical e-Standards
  - Utilize the Learning Management System
  - Test the Content Bridge
  - Verify Connectivity
  - Partner with Learning Resource Network for awareness and training
- **Content**
  - Focus Priorities
  - Include Performance Management Plans
  - Determine Readiness
  - Define Return on Investment



Strategy Portfolio: E-Government Subcommittees

Strategy Domain: Wireless Research

Team with public carriers to build a County-wide network supporting mobile data for public safety and other county departments

Assess how wireless hubs can be used within County buildings to enhance access to e-mail and electronic calendars

Continue to evaluate emerging wireless technologies that combine and/or enhance telephony, personal calendaring, e-mail and access to the Internet

Strategy Portfolio: Community Services

Strategy Domain: Community Development

Enhance Web-site to provide more information regarding program offerings

Strategy Domain: Library District

Enhance look and feel of Library Web-site with upgrades to on-line catalog

Provide more robust printing solutions for public access areas of libraries

Study migration of existing automated library system to a new graphical system with relational data base

Strategy Domain: Planning and Development

Implement on-line submission of permit and inspection requests and ability to query status of such requests

Work with county One Stop Shop partners and other jurisdictions city governments to pursue process to standardize data and forms as well as provide single point of processing county permit requests

Standardize and incorporate GIS data into permitting process thereby providing access to permit data, GIS data and linked digital documents for community members

Deploy wireless technology to field personnel to facilitate real time inspection results, code enforcement results and access to all permit information

Strategy Domain: Public Fiduciary

Redesign case management software on CompuTrust system

Develop software to allow field operatives to enter notes on handheld PDA (IPAQ) tools

Beta test new version of CompuTrust client management application

Strategy Domain: Housing

Implement new *Housing Management System*

Enhance Web presence to assist clients

Strategy Portfolio: Elected Officials

Strategy Domain: Recorder

- Convert Recorder business functions from *IBM AS/400* architecture to new technology platform
- Implement OCR-based data entry functions and indexing server to minimize manual data entry
- Research and implement DVD based passive image archiving system
- Deploy automated document filing capability from remote locations
- Implement digital signature processing
- Implement credit/debit card processing for Internet-based services and for NCR POS terminals.
- Enhance infrastructure to provide fail-over clustering of key production servers
- Complete installation of alternate-site disaster recovery capability

Strategy Domain: Elections

- Enhance the utilization of GIS Geo-Coding for coding voters into proper jurisdictions
- Provide support to State redistricting and County reprecincting based upon GIS technology and coverage
- Research and implement Internet mapping capability based upon GIS technology
- Enhance infrastructure to provide fail-over clustering of key production servers
- Complete installation of alternate-site disaster recovery capability

Strategy Domain: Treasurer

- Deploy automated remote property tax payment stations
- Integrate unsecured personal property taxes within Treasurer Management System
- Enhance Web-site offerings

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Strategy Portfolio: Elected Officials

Strategy Domain: Assessor

- Upgrade *Assessor Information System* to be an *Oracle* web-based application
- Create a GIS analytical system that will integrate with the Computer Assisted Mass Appraisal Group
- Enhance Web offering to improve customer service

Strategy Domain: Superintendent of Schools

- Enhance Home School Web-site
- Establish electronic funds transfer to and from the Treasurer
- Migrate from mainframe to web-based platform for school district finance
- Implement teleworking capability for certain job positions

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Strategy Portfolio: Health Services

Strategy Domain: Integrated Health Services

Disseminate a Request for Proposals for the outsourcing of our HIT function.

Replace the existing *Health Plan* system with a single integrated system for all business areas.

Upgrade the Help Desk data base to better track and analyze types of calls.

Expand the use of our data analysis application, Trendstar, to support more informed business decisions.

Support the Business Office in several initiatives to enhance the collection of revenue.

Stabilize key infrastructure points including redundant servers, interfaces and data recovery.

Strategy Domain: Public Health

Deployment of an Oracle Based HR DBMS that interfaces with HRMS to provide the Department of Public Health (DPH) with an in-house system that enhances data from HRMS

Deployment of an Communicable Disease Registry (CDR) utilizing SQL Server to store disease and investigative data used to disposition reported cases, and suspect cases of communicable disease occurrence and laboratory findings.

Deployment of a Public Information dissemination system utilizing a phone tree to distribute alerts to the public regarding public health issues (506-1040). This system will be augmented by published data on the Public Health Web Site at www.maricopa.gov/public_health/

Develop and deploy a DPH Intranet to disseminate DPH Policy and Procedures, MSDS Data Sheets, General HR data, etc.

Strategy Domain: Correctional Health

Initiate requirements definition process for a new *Medical Records Clinic Management System*

Enhance our Web-site to educate the public on the type and quality of services provided

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Strategy Portfolio: Health Services

Strategy Domain: Environmental Services

Business Application Development and Support:

- Continue development of integrated management system to align financial resources, policy, department operations and staff;
- Expand integrated management information system;
- Implement centralized report module providing for rapid design and deployment of management reports;
- Modify billing and collection functions;
- Evaluate internal Customer Satisfaction Surveys;
- Institute Technology Work Request Submittal policy

Web Application Development and Support:

- Align web development work with County e-Government goals to improve information sharing and access;
- Upgrade at least one web application to use new integrated web solution software package;
- Streamline procedure and establish standards relating to public notices;
- Provide a “Where I Live” GIS data mapping application allowing public to target geographic area;
- Identify and develop e-Services to result in transactional improvements

Data Center and Desktop Support:

- Coordinate technology implementation plans with county government plans;
- Work with internal business clients to research and analyze future technology trends;
- Introduce a Help Line to identify and resolve problems with information system products.

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Strategy Portfolio: Health Services

Strategy Domain: Animal Control Services

Create a true e-Commerce, Web-based dog licensing capability

Upgrade existing infrastructure to a modern, standardized configuration with *Win2000* products

Post descriptions and photographs of impounded animals to allow guardians of lost pets and those seeking a new pet to view the animals at the shelters

Strategy Domain: Human Services

Create open environment in both English and Spanish regarding programs & services offered at locations

Create data sharing environment for inter-agency movement of client related material

Create internal capability to distribute department, program and staff-related information directly to staff

Integrate with central County GIS Domain for program information beginning with plotted service areas

Strategy Portfolio: Justice & Law Enforcement

Strategy Domain: Clerk of the Court

Implement *Electronic Document Management System* for enhanced archival and workflow

Implement *Minute Entry Electronic Distribution System (MEEDS)* and based upon XML

Enhance Case Management Financials via *MCAP Project* in conjunction with Supreme/Superior Courts

Implement digitized audio recording within courtrooms (*FTR Gold*)

Strategy Domain: Superior Court

Migrate Family Court, Probate Court, Civil Court and Criminal Court in *ACS/CMS* (Automated Court Systems) from existing Bull environment to a modern web based platform based upon Microsoft Advanced Server, SQL Server 2000 and Visual Basic

Reorganize Courts IT structure based upon consultant recommendation

Initiate *MCAP Project* in conjunction with Supreme Court to implement new *AZTEC* Financial Tracking *System*

Enhance Initial Appearance Court, Pre-trial Services with Web applications

Implement automation in support of new Felony Centers

Implement new Electronic Courtrooms with special monitors, audio, video recording and Internet access

Make enhancements to Jury Management System, including improved Web-based, and Interactive Voice Response (IVR) citizen access

Enhance Court Web-site to deliver information on court cases, attorney calendars, jury service postponements and self-service center assistance

Integrate with *ICJIS* to share court and case information with other J&LE agencies

Deploy standard project management methodology using Project 2000 including templates and project master plan

Extend utilization of County teleworking infrastructure

Strategy Portfolio: Justice & Law Enforcement

Strategy Domain: Adult Probation

Continue to expand *Adult Probation Enterprise Tracking System (APETS)* deployment

Strategy Domain: Juvenile Probation

Enhance *Juvenile On-line Tracking System (JOLTS)* with:

- Graphical user interface
- GUI-based reporting function
- Internet availability

Strategy Domain: Justice Courts

Conduct analysis on replacement or rewrite of existing Justice Court automation system

Enhance the Justice Court Web-site with information regarding court locations and cases

Implement with other justice system partners, a common system for Maricopa County Courts *(MCAP)*

Establish new methods to identify and analyze data regarding County population and location of criminal offenses to determine changes in Justice Court locations and to balance court workloads

Assess overall architecture of future Justice Court system consistent with *J&LE Convergent Architecture*

Strategy Domain: Law Library

Enhance remote access to library legal resources for Court or County authorized individuals and to anyone else with an authorized library card

Establish Intranet to provide better service to County users such as prosecution, defense and court legal research

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Strategy Portfolio: Justice & Law Enforcement

Strategy Domain: County Attorney

Complete implementation and enhance usability of new *Case Management System (CAIS)*

Work with *ICJIS* to facilitate the integration of information systems among the criminal justice agencies of Maricopa County

Strategy Domain: Public Defender

Implement a comprehensive automated case management solution to incorporate current records collection, forms preparation, event coordination, calendaring, tracking, workflow processing, case preparation and case outcome data

Implement an automated case weighting system to improve the process of case assignment and enhance the movement of cases through the criminal justice system

Implement automated programs that integrate with *ICJIS*

Strategy Domain: Legal Defender

Upgrade and enhance Case Management software to current version based upon SQL Server

Strategy Domain: Sheriff

Procure and deploy new *Record Management System (RMS)* to tie all MCSO data systems together

Upgrade the *Computer Aided Dispatch (CAD) System* to enhance 911 call handling

Procure and deploy technology for the new County Jail including auto booking, video visitation, etc.

Complete the roll out of the 800MHZ Smart Zone Digital Radio System to field personnel

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Strategy Portfolio: Public Works

Strategy Domain: Transportation

Deploy a fully integrated web-based Job Cost System that tracks all costs against jobs and manages activities including:

- Purchasing
- Payroll
- Hourly equipment
- Inventory
- Journal entries and other expenditures

Enhance the innovative *Roadway Management System* which integrates GIS, tabular, and aerial data

Deploy a *Geodetic Densification and Cadastral Survey (GDACS)* Web-site to enable all cities within the County to have access to consistent and accurate survey data

Recover and archive over 50 attributes from the Bureau of Land Management survey monuments

Strategy Domain: Flood Control

Implement Web-based inspection requests and results allowing citizens to request drainage inspections on the web and get results as soon as the inspection is complete

Equip drainage inspector vehicles with pen-based mobile computers and GPS to allow:

- Inspectors to receive inspection requests and image files
- Inspectors to immediately post results in real-time
- Supervisors to track location of staff

Enhance Web-site to allow citizens to access maps showing their property, the flood plain, the regulatory status (insurance requirement) and names and addresses of contacts for the various jurisdictions in the county

Participate with other County and municipal agencies in a $ 1.3 million project to develop a spatially accurate digital photo of Maricopa County, and portions of Pinal County and the Tonto National Forest

Strategy Portfolio: Public Works

Strategy Domain: Facilities and Equipment Management

Enhance Intranet site to include statistical and customer-related information (e.g. service call status)

Strategy Domain: Electronic Records Retention

Implement “ghost” e-mail server that captures all County e-mail including PDA-based messages

Strategy Domain: Network Protection

Continue to “ruggedize” three-tier County protection model as follows:

- External black box gatekeeper
- Electronic mail attachment screening
- Desktop virus management

Implement Web Appliance for SMPT, FTP and HTTP traffic

Continue to refine the County-wide *Virus Threat Notification and Management System*

Strategy Domain: Regional 800MHZ Radio Network Infrastructure

Team with local municipalities to achieve optimum use of radio frequencies

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Strategy Portfolio: Integrated Infrastructure

Strategy Domain: County-wide Directory of Network Resources

Establish *Microsoft Active Directory* as standard County-wide directory infrastructure

Establish County-wide standard naming conventions for key resources

Strategy Domain: Voice Systems

Extend main telephone switch to remote County sites using emerging technology (I.e. voice over IP)

Strategy Domain: Data Systems (Backbone and Desktop)

Provide ATM, DS3 or better connections to all sites with 100 or more users within County facilities

Provide switched 10 megabit, 100 megabit, or gigabit to the desktop depending upon user need

Strategy Domain: Mobile Infrastructure

Develop infrastructure that support mobile data throughout the County or team with outside vendor to build upon their public infrastructure

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Strategy Portfolio: Integrated Infrastructure

Strategy Domain: Teleworking Infrastructure (including Secure VPN)

Extend the capabilities of the main telephone switch to teleworkers

Migrate toward secure card technologies for fixed locations and mobile remote teleworkers

Continue to add high-speed communications vendors to County RAPID contract

Strategy Domain: Video Systems

Expand use of compressed, streaming video to desktops and conference rooms for training and educational purposes utilizing multi-cast transmissions

Offer four+ channels of concurrent video streams to County employees over the ATM network

Utilize external, streaming video host sites for uni-cast transmissions of training over the Internet to County employees when away from the office

Broadcast Board of Supervisor Meetings (and other informational topics) over the Internet

Complete installation of video conferencing and bridging technology that will allow the County to conference with other municipalities within Arizona

Strategy Domain: Network Management

Enhance Configuration Change Control to archive all network changes and configurations

Enhance monitoring to perform projections based upon real-time data gathering

Enhance Event Correlation Management to provide automated notification based upon a specific failure

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